

AN ARCHAEOLOGICAL SURVEY OF THE PROPOSED VASTAR A-109  
PIPELINE IN WESTERN JASPER COUNTY, TEXAS

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AN ARCHAEOLOGICAL SURVEY OF THE PROPOSED VASTAR A-109 PIPELINE  
IN WESTERN JASPER COUNTY, TEXAS

BVRA Project Number 01-22

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## **ABSTRACT**

An archaeological investigation of a 5333 foot pipeline (3.67 acres) in western Jasper County, Texas was performed by Brazos Valley Research Associates (BVRA) of Bryan, Texas in October 2001. No archaeological sites were found to exist within the project area, and it is recommended that construction be allowed to proceed as planned.

## **ACKNOWLEDGMENTS**

Brazos Valley Research Associates is appreciative of the assistance provided by the following individuals. Ron Fossett of Environmental and Safety Professionals, Inc. in Kinder, Louisiana provided maps and was present during the survey. The Principal Investigator is grateful to the Project Archaeologist (James E. Warren) and the field crew (Arthur Romine and Bobby Jemison) for their assistance during the survey. William A. Martin at the Texas Historical Commission (THC), Archeology Division, served as the reviewer for this project, and his input was valuable to the successful outcome of this investigation. Adrianne Mraz, Research Assistant at the Texas Archeological Research Laboratory (TARL), conducted the records check of the site records for previously recorded sites in and near the project area. Lili Lyddon prepared the figures that appear in this report.

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## INTRODUCTION

An archaeological survey of a proposed 5333 foot pipeline (3.67 acres) in western Jasper County, Texas (Figure 1) was conducted by BVRA on October 22, 2001. The proposed pipeline will lead from an existing pipeline (Station 0+00) to a well site currently in operation (Station 53+33). The maximum width of the pipeline route will be 30 feet; however, the actual ground disturbance or permanent easement will only affect 10 feet; the remaining 20 feet is a temporary work area. The projected depth along the pipeline route is four feet. The tract to be surveyed parallels traverses uplands through a recently clear-cut pine forest and a small segment of hardwood bottomland. The terrain along the route is hilly with elevations ranging from approximately 315 feet at the pipeline/riser tie-in point and elevations above 275 feet along most of the route except at the single crossing where it is between 50 and 275 feet. A previous investigation by Environmental and Safety Professionals, Inc. determined that the creek crossing (tributary of Sandy Creek) is the only wetland area present within the route of the proposed pipeline. To the west of the existing well is a major stream (Sandy Creek) that runs in a north-south direction. The current project area is depicted on the 7.5' United States Geological Survey topographical map Jasper East (dated 1984 [Provisional Edition]) (Figure 2).

Overall, the project area is located in a region known to contain significant archaeological sites. Because of this archaeological potential, a reconnaissance survey by professional archaeologists was warranted according to Section 106 of the National Historic Preservation Act. Since this is a federally funded project (EPA), no Antiquities Permit was required. In order to satisfy this requirement, BVRA was retained by Environmental and Safety Professionals, Inc. of Kinder, Louisiana to examine the proposed pipeline route for the presence of significant archaeological sites. The project number assigned by BVRA is 01-22.

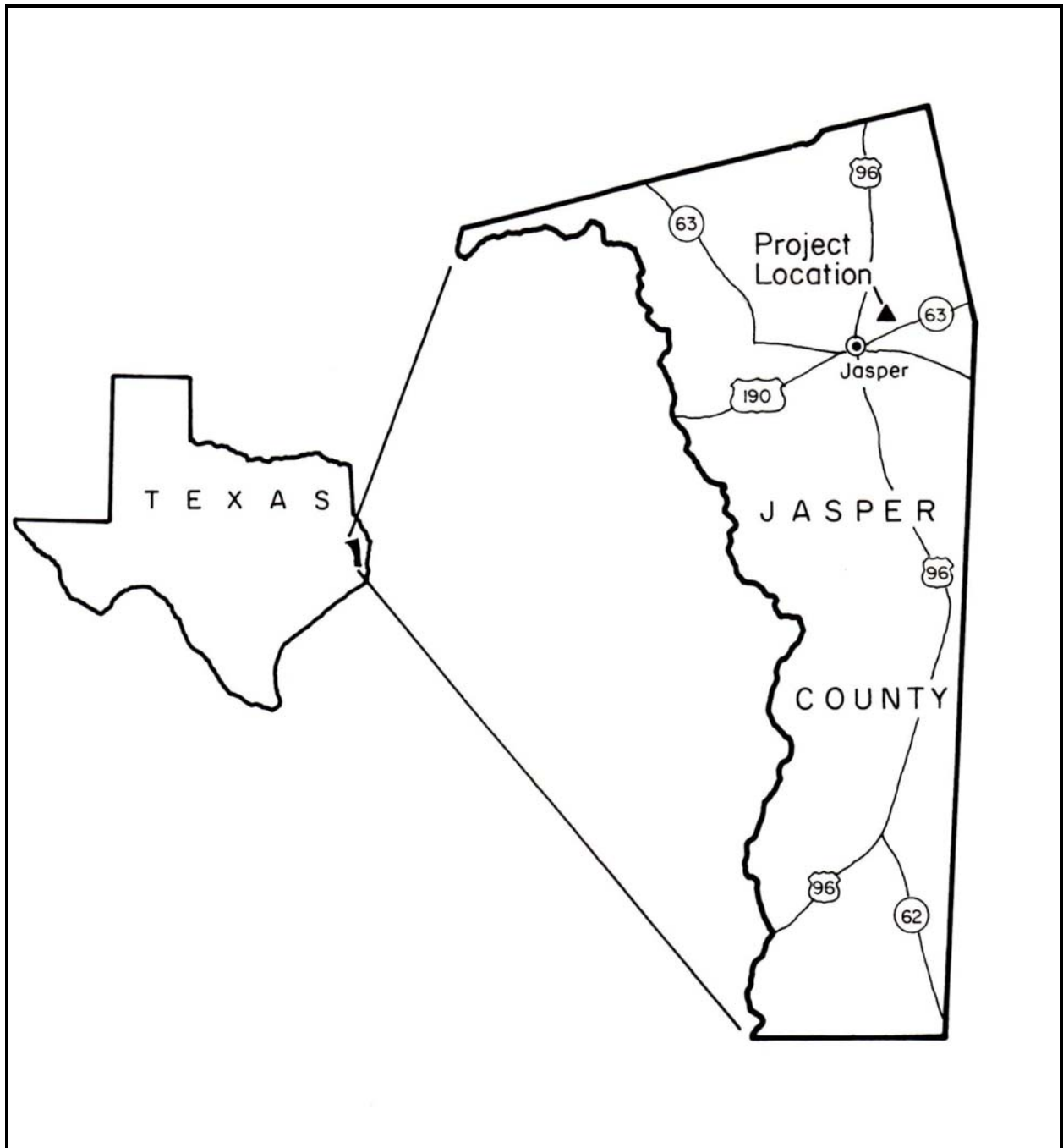


Figure 1. General Location Map



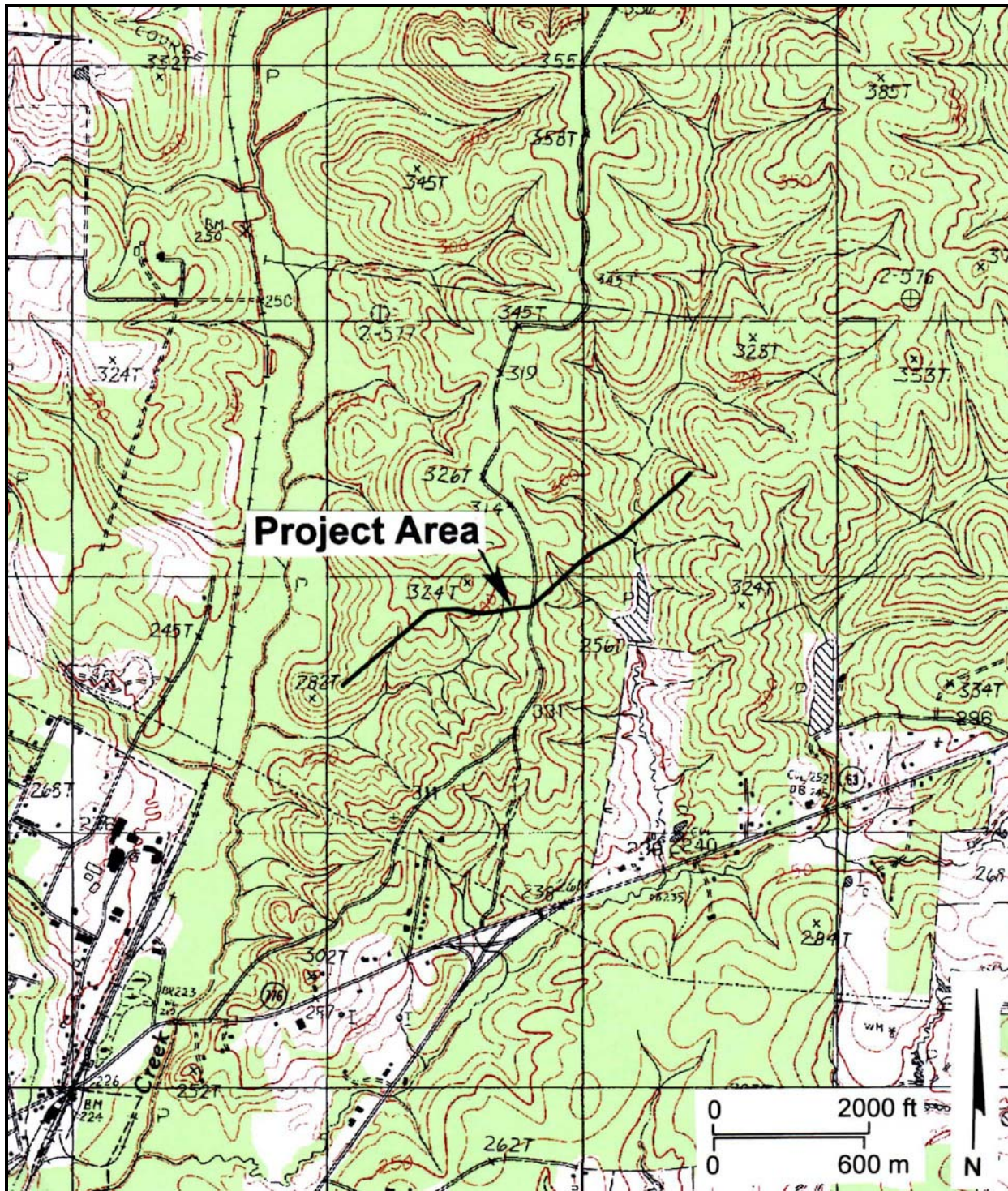


Figure 2. Project Area on Topographic Map



## ARCHAEOLOGICAL BACKGROUND

According to a recently published planning document for the Eastern Planning Region of Texas (Kenmotsu and Perttula 1993:Figure 1.1.2), Jasper County is situated within the Southeast Texas archeological study region. In 1985, according to a statistical overview prepared by the THC (Biesaat et al. 1985:151), Jasper County contained 86 recorded sites. The site files at TARL revealed 149 recorded sites at the time of this survey. In 1985, 0 sites in the county had been excavated, 10 had been tested by hand, 1 had been tested by machine, and 73 had been surface collected. Twenty-three recorded prehistoric sites in the county were listed as Archaic and 54 sites were listed as Late Prehistoric (Biesaat et al. 1985:151). One site contained burials.

In the volume by (Kenmotsu and Perttula 1993:Figure 1.1.3) an evaluation was made regarding density of sites in Texas counties. At this time Jasper County was next to last with 0.001 - 0.1 sites per square mile. In 1993, Jasper County contained 99 recorded archaeological sites. Of this number, 27 were regarded as not significant, 62 were of unknown significance, 9 were probably significant, and 1 was considered to be significant according to National Register criteria (Kenmotsu and Perttula 1993:Table 2.1.1).

Unfortunately, there are major forces that continue to threaten the integrity of archaeological sites in Jasper County. These include population growth (City of Jasper and surrounding area), highway construction, Sam Rayburn Reservoir (formerly McGee Bend), and the lumbering industry.

Although private contract archaeology firms have played a part, most of the archaeological sites known to exist in Jasper County have been identified by surveys associated with reservoir construction and in-house projects by National Forest personnel. The earliest archaeological research in the area was performed in the late 1930s and early 1940s by researchers from The University of Texas at Austin. At that time prehistoric cemeteries and mound sites were considered to be of primary importance. From the late 1940s until the mid 1970s, most of the archaeological research in East Texas was carried out in connection with reservoir construction. In 1948, for example, Robert L. Stephenson published the results of his work at the proposed McGee Bend Reservoir in Angelina, Jasper, Nacogdoches, Sabine, and San Augustine counties (Stephenson 1948a, 1948b). At the time this was the only systematic professional major archaeological investigation in the county. Since that time several studies regarding reservoirs such as Dam "B" (Stephenson 1949), Big Cow Creek (Moir n.d.), and Rockland Lake (Prikryl (1987) have been published.

It is beyond the scope of this report to discuss in detail the archaeological background of Jasper County, especially when numerous contract reports are available. The interested reader is referred to the statistical overview (Biesaat et al. 1985), the planning document published by the THC (Kenmotsu and Perttula 1993), other reports cited above, and the Abstracts in Contract Archaeology series also published by the THC for more detailed information regarding the archaeology of Jasper County.

## METHODS

Prior to entering the field, a records check was conducted for BVRA by Adrienne Mraz, Research Assistant at TARL. Ms. Mraz checked the site files for previously recorded sites in the project area. In addition, information pertaining to previous archaeological work in the region was obtained from the library at BVRA. The field survey crew relied on the topographic map Jasper East and the soils book for Jasper County (Neitsch 1982). The method utilized to assess the pipeline consisted of shovel tests and a surface inspection of exposed areas.

The field survey crew walked the entire route excavating shovel tests along the way. Since the project area does not exceed 30 feet (9.15 meters) in width, parallel survey transects were not necessary. In all, 14 tests were dug through sandy soils. All earth excavated through shovel testing was screened using 1/4" hardware cloth, and a shovel test log (Appendix I) was kept. Profiles of the shovel tests were sketched in the field, and the tests were drawn on a project area map. The location of all shovel tests is depicted in Figure 3. The wooded nature of the project area made it difficult to dig shovel tests at regular intervals. Tests were excavated at closer intervals near the tops of the hills and on level areas and further apart on the slopes. No tests were dug on steep slopes. Unfortunately, the line was not staked prior to this survey. The route had, however, been flagged by Ron Fossett who accompanied the survey crew during this project.

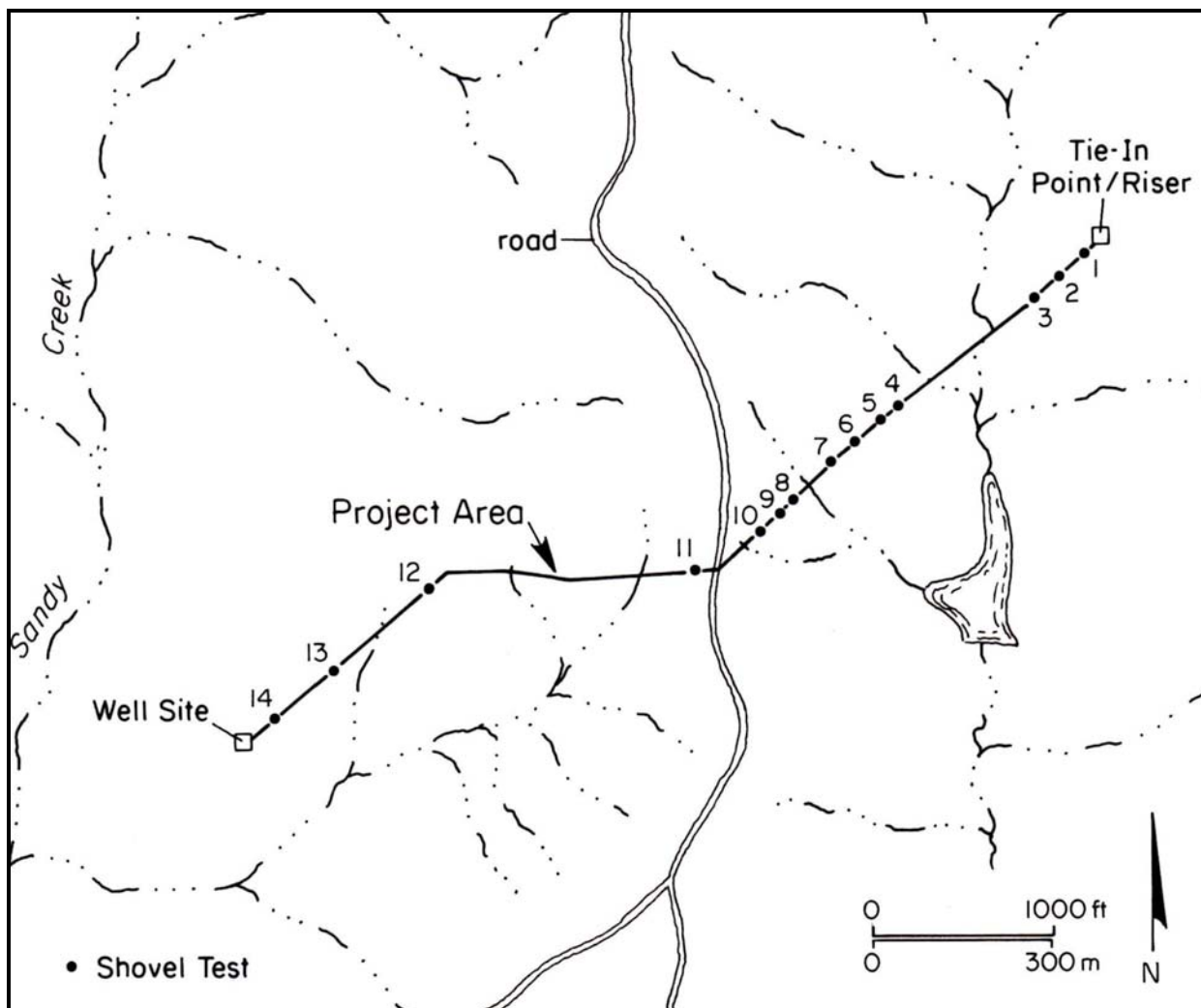


Figure 3. Project Area Map

## RESULTS AND CONCLUSIONS

The records check at TARL revealed no previously recorded archaeological site in the project area. No archaeological sites were found by the survey crew during this investigation. The area surveyed consisted of sandy uplands composed of two soil types as defined by the soil survey for Jasper County (Neitsch 1982:Sheet 7). These are the Letney-Tehran association, undulating (LTC) (Neitsch 1982:30) and the Tehran-Letney association, hilly (TLE) (Neitsch 1982:43-44). The project area depicted on the soils map appears as Figure 4.

LTC soils are deep sandy soils on uplands on broad ridges and side slopes above drainageways. They occupy most of the highest landforms in the survey area. Slopes range from 1 to 8 percent. Letney soils are well drained, and Tehran soils are somewhat excessively drained. Permeability of the soils is moderately rapid, and runoff is slow. The available water capacity is medium for Letney soils and low for Tehran soils. These soils are typically used as woodland.

TLE soils are deep sandy soils on ridge tops and side slopes above drainageways on uplands. Slopes range from 8 to 20 percent. Tehran soils are somewhat excessively drained, and Letney soils are well drained. Permeability of Tehran and Letney soils is moderately rapid, and runoff is slow. The available water capacity is low for Tehran soils and medium for Letney soils.

It is believed that the project area as currently proposed is a low probability area for significant archaeological sites. The highest probability area is the high hill just to the west of the existing well site overlooking the main channel of Sandy Creek.

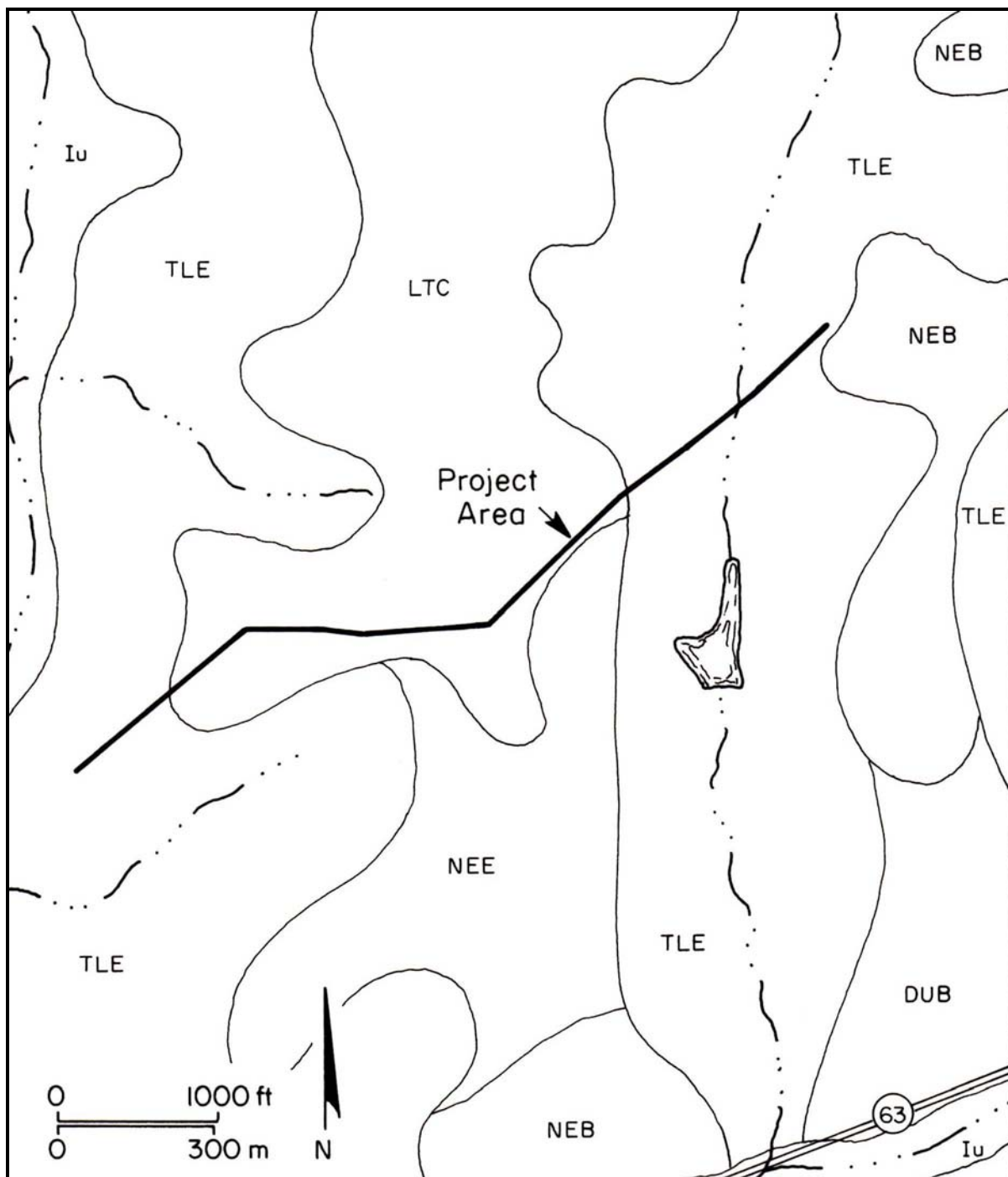


Figure 4. Project Area Soils

## **RECOMMENDATIONS**

BVRA recommends that Duke Energy be allowed to proceed with construction of the gas pipeline as planned. It is the opinion of BVRA that no significant archaeological sites were missed during the examination of the 5333 foot proposed pipeline route. Should, however, cultural materials be exposed during the construction of the pipeline in areas other than mentioned above, all work should cease until the situation can be evaluated by the THC in consultation with Environmental and Safety Professionals, Inc. and BVRA.



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## APPENDIX I: SHOVEL TEST LOG

Test	Depth	Description	Results
01	110 cm	yellow coarse sand*	sterile
02	90 cm	yellow sand*	sterile
03	90 cm	yellow sand*	sterile
04	100 cm	brown coarse sand*	sterile
05	90 cm	yellow sand*	sterile
06	100 cm	yellow sand*	sterile
07	90 cm	yellow sand*	sterile
08	90 cm	red coarse sand*	sterile
09	100 cm	red sand*	sterile
10	90 cm	red sand*	sterile
11	30 cm	yellow sand over yellow clay	sterile
12	20 cm	yellow sand over yellow clay	sterile
13	30 cm	yellow sand over yellow clay	sterile
14	50 cm	red sandy clay over gravel	sterile

\* not dug to clay